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Alternative Energy Group

Over the past few months, James Buckley has been chairing a senior interagency group to review domestic and international actions which would facilitate the development of energy alternatives to Soviet gas in Europe and Japan. The effort has focussed initially on actions the U.S. could take to enhance our credibility as a reliable and long term energy supplier.

The U.S. has sufficient reserves to meet its own needs while contributing significant amounts to Europe and Japan as well. On numerous occasions, U.S. representatives have been asked what measures are being taken that will allow increased and more competitive exports of U.S. energy.

However, there are a number of bottlenecks which are prohibiting full development of U.S. export capability. Overcoming these obstacles in a way which is consistent with the Administration's primary energy objective of non-interference in energy markets is a doable, desirable and timely goal.

On the domestic front, the group is reviewing a number of possible policy initiatives including:

1) lifting the ban on Alaskan oil exports to Japan;

2) Means to facilitate U.S. coal exports; and

3) Action to phase-in full decontrol of all natural gas prices by 1985.

The next meeting of the Buckley Group on August 4 will review these and other issues -- the goal being to make recommendations for Cabinet level (probably NSC) consideration. Some of the issues being considered are politically difficult; and while a program can be agreed upon in principle, it is unlikely that the President will be in a position to announce such an effort until after the fall elections.

NSC Review Completed.

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Having assessed domestic possibilities, the Alternative Energy Group will then focus on overcoming obstacles to international alternatives. Evan Galbraith, U.S. Ambassador to France, has been monitoring progress in accelerating North Sea development. Papers have been prepared on European gas projections and the role of alternatives (with and without Siberian gas). In addition, there are preliminary papers on North Sea, Middle East and North African alternatives which review: 1) economics, 2) obstacles, and 3) possible U.S. actions to stimulate development. The international side of the Buckley Group effort is expected to be completed by early October.

Positive action on energy will reduce tensions with our allies, be psychologically and symbolically important in our drive to reduce Soviet influence in European energy markets, benefit U.S. business, increase employment, and in the long run, enhance overall Western energy security.

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Overview of European Gas Demand and Alternatives to Siberian Gas (see attached visuals)*

Energy Scenarios

Although West European demand for gas has softened in recent years, the falloff is expected to bottom out this year and demand to revive as economic recovery begins.

1. We estimate that demand for gas in Western Europe will increase from about 3.6 million barrels per day oil equivalent (b/doe) in 1980 to about 4.1 million b/doe in 1990 and to 4.5-5.0 million b/doe by the year 2000.

2. As domestic West European supplies of gas are depleted or shut in, the import dependence of the region will rise -- from 13 percent currently to about 50 percent by the turn of the century.

3. Provided some new deliveries of Soviet gas begin in the late 1980s, West European countries expect to be able to meet projected demand through 1990 from supplies they have already lined up.

   -- West Germany and France have signed contracts, including those for Soviet gas, that will probably give them access to more gas than they will use in the 1980s.

   -- Italy is expected soon to finalize negotiations with Algeria and the Soviet Union to fulfill gas requirements for the 1980s.

4. For the 1990s, however, West European countries will have to line up new supplies of 1.2 to 1.3 million b/doe.

5. The Soviets are anxious to increase gas exports to Western Europe and, with the completion of the Siberian gas pipeline, could more than double current sales by 1990.

   -- The Soviet Union is currently delivering about 400,000 b/doe of gas to Western Europe.

   -- Total Soviet gas exports to Western Europe in the late 1980s could be about 900,000 b/doe, about 25 percent of West European gas requirements and 3 percent of total energy needs.

This analysis is a summary of European gas demand and alternatives prepared for the Buckley Energy Group on 22 July 1982. It is based on the extensive work done by the CIA on this issue over the last few months.

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6. If the West Europeans were to forego increases in Soviet gas deliveries because of sanctions or unforeseen political evnets, they could technically balance supply and demand through the decade. However, the economic and political decisions necessary to bring about this combination of events would require a major reversal of existing policies.

   -- Increased production of Dutch gas would be needed.

   -- Development of Norway's Sleipner field would have to be accelerated.

   -- Domestic production in France, West Germany, and Italy would have to be sustained or increased from present levels.

   -- Gas consumption would probably have to fall below present expectations.

Alternatives

Maximizing non-Soviet supplies in the 1990s will depend on Western Europe's assessment of the relative costs of alternative gas supplies and their concerns over security and diversification of supplies.

1. Norwegian gas offers a secure but costly alternative to Soviet gas in the 1990s. Norway could supply an additional 670,000 to 830,000 b/d oil equivalent, which would cover the bulk of the increase projected for West European demand in the 1990s.

   -- Deliveries from the Block 31/2 (Troll) field in the North Sea could reach 500,000 to 670,000 b/d oil equivalent by the mid-1990s. New technologies must be developed to exploit the field, which lies in very deep water and contains a thin oil layer that could delay development. It will cost more than $10-15 billion to develop and deliver 500,000 b/doe of gas directly to the continent.

   -- Another area for potential development is the Tromsa area off the northern coast of Norway. Recent discoveries indicate a large reserve potential, but simultaneous development of Tromsa and Troll is unlikely.

   -- Norway's Sleipner area -- with reserves of about 8 trillion cubic feet -- offers the greatest potential for development in the near term.

2. The United Kingdom is not likely to become a net exporter of gas, but could play a key role in a gas swap arrangement with Norway.

   -- If such a triangular deal could be arranged with Norwegian gas from Sleipner going to the UK in exchange for UK gas to the continent, 170,000 to 250,000 b/d oil equivalent could be delivered in the early 1990s.

   -- Development and pipeline construction costs could total about $6 billion.

3. West European importers' most reliable and economical source of additional gas would be the Netherlands, currently Western Europe's largest gas supplier.

   -- Unless the current conservation policies of the Hague change, however, the amount of Dutch gas available for export in the late 1990s will dwindle to less than one-fourth its present volume.

   -- Falling gas sales and Dutch needs for funds are pressing the Hague to reconsider its export policies; at most, the Dutch probably could increase sales by about 150,000 b/d oil equivalent for a few years.

   -- Some Dutch officials have expressed a willingness to provide more gas in the near term if they could obtain gas from other countries later; discussions between high level Dutch and Norwegian officials on such an arrangement are underway but the speed of progress in negotiations will depend on political factors in each country.

4. Gas production on the European continent is expected to decline over the next two decades. Intensified exploratory drilling, particularly in Italy, might slow the expected decline but probably will not yield large additional supplies fro Europe.

5. West European imports of LNG from Nigeria, Cameroon, Qatar, or other sources could total 150,000 b/d oil equivalent but would be very costly and pose security risks.

   -- Nigeria's Bonny LNG project will probably be restructured at half the original size but will not be complete until the early 1990s.

   -- Qatar could supply sizable quantities of gas in the mid to late 1990s but transportation costs would be very high.

6. Gas imports from North Africa or the Middle East via pipeline could offer a more economical alternative than LNG imports, but may be politically undesirable.

   -- Additional gas could be delivered through existing pipelines from Algeria to Italy, and up to 250,000 b/doe through a new pipeline to Spain.

   -- The proposed Iranian gas pipeline to Europe via Turkey, while feasible, would take at least five years to complete and could pose serious security risks.

   -- Other proposed pipelines from the Middle East are under consideration but they are likely to be costly and politically difficult.

7. US coal could provide some additional energy supplies to Western Europe by 1990 but volumes are likely to be small.

   -- Western Europe already has ambitious plans to use coal and would need to expand coal handling capabilities even further.

   -- Some type of subsidy would probably be needed to encourage greater use of coal in industry.

8. Delivery of LNG from Alaska by nuclear powered submarine has been proposed.

   -- Cost estimates by General Dynamics are optimistic; the delivered price of gas would probably be in excess of $7 per million btu.

   -- The project would require the Europeans to build several new LNG import terminals at a cost of $900 million each.

Energy Security

Although steps are being taken to expand gas storage capacity in Western Europe, growing dependence on imported gas in the late 1980s will increase vulnerability to disruptions.

1. By 1990, gas supplies subject to disruption (from Algeria, Libya, and the Soviet Union) could supply almost 40 percent of overall gas demand in Western Europe and an even higher percentage in France and Italy.

2. The seasonal nature of gas demand will tend to magnify the potential impact of a disruption.

3. Potential Dutch surge capacity over existing production levels is estimated to be 1.7 million b/doe, sustainable for one year.

4. Plans call for gas storage capacity to be increased more than 50 percent by the mid 1980s.

   -- Current storage capacity is the equivalent of only 35 days average 1981 consumption.

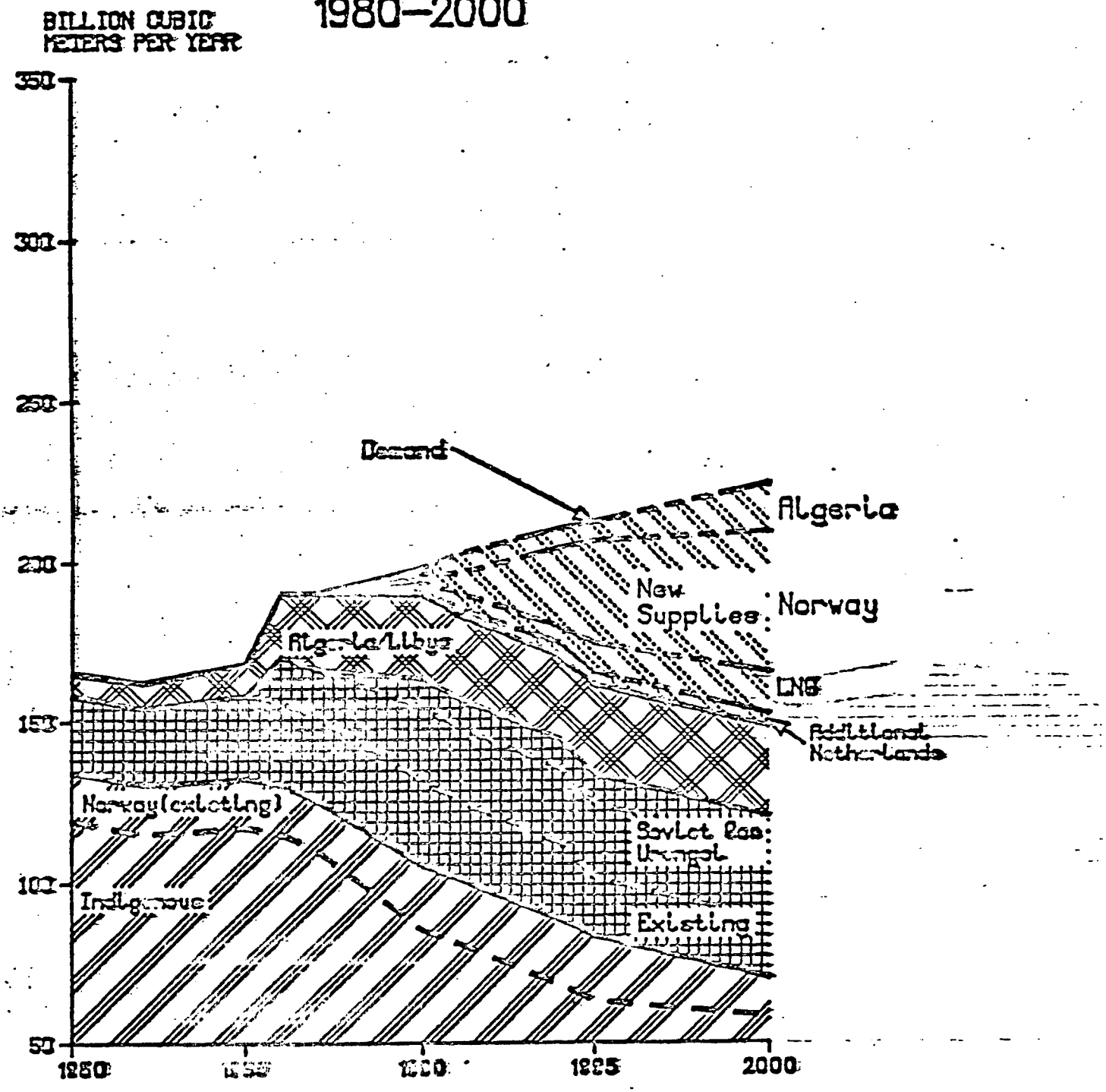
   -- Much of the storage capacity will be required to meet peak seasonal demand.

5. The IEA has undertaken a detailed study of gas security including assessment of storage capacity and the flexibility of the gas grid.

Visuals:

- European Gas Supplies with Siberian Gas
- European Gas Supplies without Siberian Gas

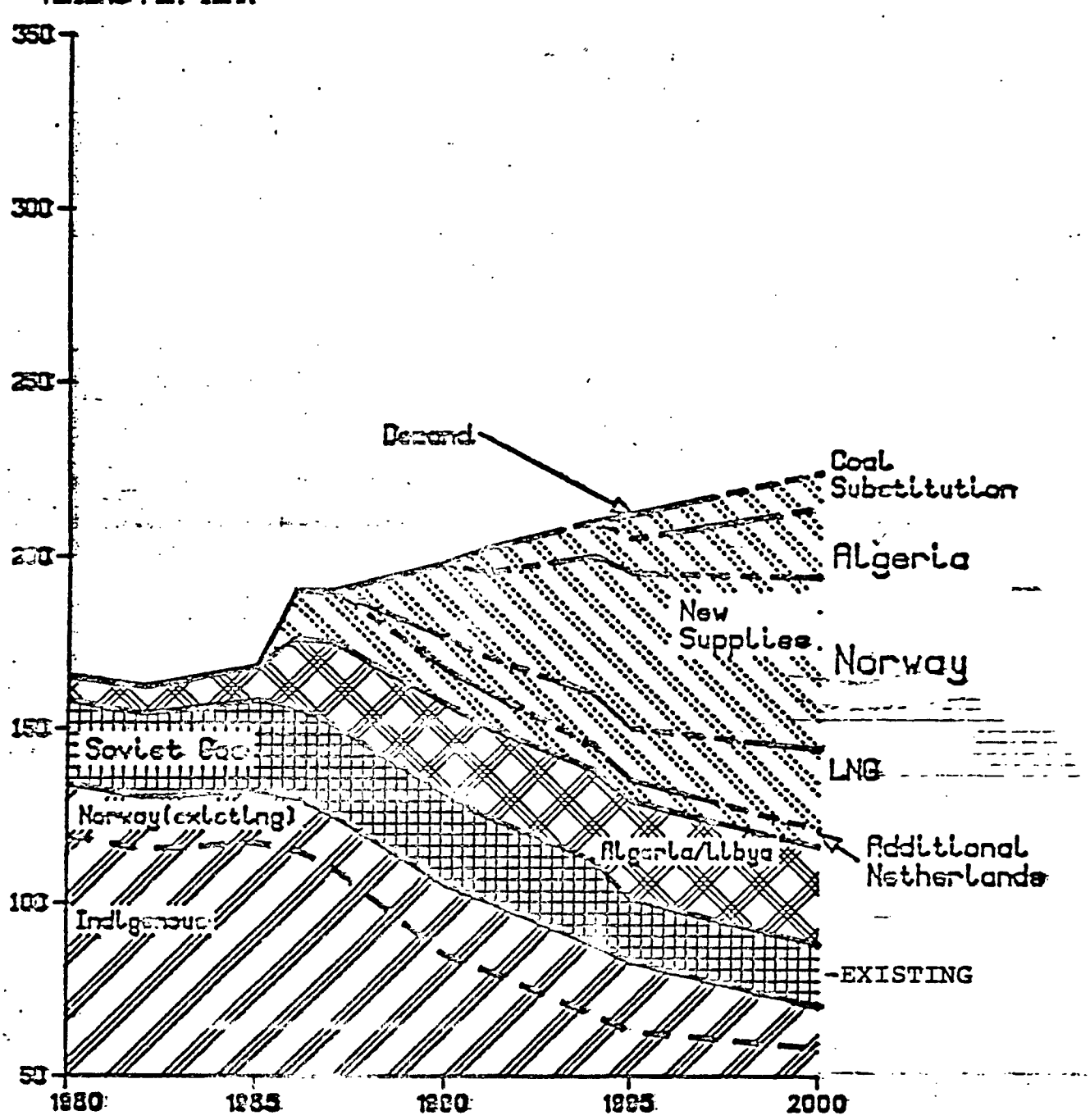
Continental Europe: Natural Gas Supply and Demand Forecast 1980–2000



Low Demand Scenario

(with Siberian gas)

Continental Europe: Natural Gas Supply and Demand Forecast 1980–2000



Low Demand Scenario
Without Siberian Gas